

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Inventor (s) Freitag et al.

Docket No. HSJ9-2003-0071US1

Serial No. Not yet assigned

Art Unit Not yet assigned

Filing Date Not yet assigned

Examiner Not yet assigned

Title: SPIN VALVE SENSOR WITH A CAPPING LAYER COMPRISING
COBALT

MAIL STOP PATENT APPLICATION

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

SIR:

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 CFR 1.97(b), the enclosed Information Disclosure Statement, with attached reference(s), is submitted for consideration in the above-identified application.

A copy of each of the listed documents is enclosed.

NO FEE IS REQUIRED.

The Examiner is respectfully requested to make the listed documents of record in connection with the prosecution of the subject application.

Respectfully,



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Date: 30 Sept 2003

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Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets necessary)</i>				COMPLETE IF KNOWN	
				Application Number	Not Yet Assigned
				Filing Date	Not Yet Assigned
				First Named Inventor	Freitag
				Group Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
SHEET	1	OF	1	Docket Number	HSJ9-2003-0071US1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
		US 2002/0181173	A1	Nagai	12-05-2002	
		US 2002/0085322	A1	Pinarbasi	07-04-2002	
		5,701,223	A1	Fontana Jr. et al.	12-23-1997	
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		6,353,519	B2	Pinarbasi	02-05-2002	
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		5,880,913		Gill	03-09-1999	
		5,432,734		Kawano et al.	07-11-1995	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (If known)				
			WO 02/077657	A1	Hong et al.	10-03-2002		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶
		EGELHOFF Jr. et al., Oxygen as a Surfactant in the Growth of Giant Magnetoresistance Spin Valves, Journal of Applied Physics, 15 December 1997, 6142-6151, 82-12	
		SAKAKIMA et al., Enhanced GMR in PtMn-Based Spin Valves with Specular Reflective Thin Oxide Layers, IEEE Transactions on Magnetics, September 2000, 2554-2556, 36-5, Kyoto, Japan	
		Wang et al., Specularity in GMR Spin Valves and In Situ Electrical and Magnetotransport Measurements, IEEE Transactions on Magnetics, September 2000, 2841-2846, 36-5, Kyoto, Japan	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.